

REMARKS

In the office action dated April 27, 2006, claims 1-33 are pending. Claims 1-33 have been rejected. Claims 1, 4, 8-12, 16, 18, 20, 24-27, 30 are rejected under 35 U.S.C. 102(B) as being anticipated by Leturmy, et al. (hereinafter "Leturmy") Claims 2, 5-7, 13-15, 17, 21-23, 28, 29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leturmy et al. Claims 1, 2, 4-18, 20-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Japanese '125 publication. Claims 3, 19, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leturmy, et al. or the Japanese '125 publication as applied to claim 1 above, and further in view of either Jaimes, et al. ("Jaimes") or the Japanese '090 publication. Claims 13 and 28 are being canceled, without prejudice. Claims 34-48 are being added. No new matter is being introduced by way of the amendments. Upon entry of this Amendment, claims 1-12, 14-27, and 29-48 will be pending.

With regard to the rejection of claim 1 under 35 U.S.C. 102(b), Applicant has amended claim 1 to include that the shredder includes a shredder hopper and that "at least one air duct [extends] from the shredder hopper to extract airborne particles from within the shredder hopper." Support for amended claim 1 may be found on page 9, lines 17-19 from the originally filed specification ("[f]or instance, air may be drawn from the conveyor 9 and/or shredder hopper 10 through ducting 36 and 37 respectively"). Leturmy describes an apparatus 1 for grinding containers (toner cartridges) that contain a powder (toner) (FIG. 1). The apparatus 1 includes a grinder 5 with a hopper 9. Beneath the grinder 5 is an inclined vibrating grid 23 that allows ground fragments to be removed and allows toner from the cartridges to be recovered by a suction system 25 placed beneath the grid 23. (col. 3, line 65 - col. 4, line 3). Leturmy does not teach that the shredder hopper 9 includes "at least one air duct extending from the shredder hopper to extract airborne particles," but rather relies on the suction system 25 placed beneath the grid 23 to collect the toner from the cartridge pieces. Because Leturmy does not teach each and every element of amended claim 1, Applicants respectfully request that the rejection of claim 1 under 35 U.S.C. 102(b) be withdrawn. Claims 4, 8-12, and 16, which depend from independent claim 1, should be allowable for at least the same reasons.

With regard to the rejection of independent claim 18 under 35 U.S.C. 102(b), Applicants have amended claim 18 to include a similar limitation as that of claim 1 ("at least one air duct extending from the shredder hopper to extract airborne particles from within the

shredder hopper”). As described with regard to the rejection of claim 1 above, Leturmy does not teach that the shredder hopper 9 includes “at least one air duct ...” Accordingly, Applicants respectfully request that the rejection of claim 18 under 35 U.S.C. 102(b) be withdrawn. Claims 20, 24-27, and 35, which depend from independent claim 18, should be allowable for at least the same reasons.

With regard to the rejection of dependent claims 2, 5-7, 13-15, 17, 21-23, 28, 29, and 31 under 35 U.S.C. 103(a), in view of the amendments to claims 1 and 18, Applicants respectfully submit that the rejection is now moot. More specifically, because, as described above with respect to independent claims 1 and 18, from which the dependent claims recited above depend, Leturmy does not teach or suggest each and every claim element (e.g., “at least one air duct extending from the shredder hopper to extract airborne particles from within the shredder hopper”). Whether or not it would be an obvious modification to include features as claimed in the dependent claims becomes moot in view of the amendments to independent claims 1 and 18 and are therefore not specifically addressed at this time. Accordingly, because each of the limitations of independent claims 1 and 18 are not taught or suggested by Leturmy, dependent claims 2, 5-7, 13-15, 17, 21-23, 28, 29, and 31, which depend from independent claims 1 and 18, should be considered allowable for at least the same reasons.

With regard to the rejection of claims 1, 2, 4-18, and 20-31 under 35 U.S.C. 103(a) as being unpatentable over the Japanese ‘125 publication, Applicants respectfully submit that the Japanese ‘125 publication does not teach or suggest Applicants’ amended claims 1 and 18. The Japanese ‘125 publication describes a shredding system to remove toner from toner cartridges with the exception of agitating the material to perfect the separation step (Office Action, paragraph that spans pages 2 and 3). Nitrogen gas is formed in the upper part of the shredder 4, presumably to avoid explosions from the dust being produced from the toner cartridges, and an exhaust port 18 in the lower part of the shredder 4 collects debris (e.g., toner dust). (para. 0025). The Japanese ‘125 publication does not teach or suggest each of the limitations of amended claims 1 and 18 (e.g., “at least one air duct extending from the shredder hopper to extract airborne particles from within the shredder hopper”). Therefore, Applicants respectfully request that the rejection of independent claims 1 and 18 be withdrawn. Claims 2, 4-18, and 20-31, which depend from independent claims 1 and 18, should be considered allowable for at least the same reasons.

With regard to the rejection of claims 3, 19, 32, and 33 under 35 U.S.C. 103(a) as being unpatentable over Leturmy or the Japanese '125 publication as applied to claim 1 above and further in view of either Jaimes or the Japanese '090 publication, Applicants respectfully submit that claims 3 and 19, which dependent from amended independent claims 1 and 18, and independent claims 32 and 33, which are being amended in a similar manner as independent claims 1 and 18 should be considered allowable over the art of record. More specifically, each of these claims should be considered allowable over Leturmy and the Japanese '125 publication as described above. Jaimes describes a method for recycling expanded polymers that includes grinding expanded thermoplastic polymer material in a grinding chamber under elevated temperature while feeding ionized gas through the grinding chamber during the grinding (Abstract). The Japanese '090 publication also describes the use of ionized gas during a grinding process. However, none of the references, alone or in combination, teaches or suggests each of the claim limitations as recited in amended claims 1, 18, 32, and 33. Accordingly, Applicants respectfully request that the rejection of claims 3 and 19, which depend from independent claims 1 and 18, and amended independent claims 32 and 33, which have been amended in a similar manner as claims 1 and 18, be withdrawn.

Applicants have added new claims 34-48.

Support for claims 34 and 35 may be found on page 5, lines 3-5 in the originally filed specification (“[t]he mechanical separator provides a high frequency vibration to mobilize the toner, whereas the trammel provides a lower frequency tumbling and rubbing action to liberate the toner from the cartridge pieces”).

Support for claims 36 and 37 may be found on page 6, lines 13-15 in the originally filed specification (“[t]he entire separator 3 is not in direct contact with the rest of the apparatus and is located on springs 16 to isolate its movement”).

Support for amended claim 11 and new claims 39, 47, and 48 can be found on page 6, lines 5-6 of the originally filed specification (“[t]he rollers operate at a relatively-low speed of around 26 rpm in order to minimize the risk of sparking”).

Support for new claim 40 can be found on page 6, line 15-16 of the originally filed specification (“[r]ubber flanges provide a seal between the shredder and the separator without passing on vibration”).

Support for new claims 41-43 may be found on page 5, lines 20-21 of the originally filed specification (“[a]utomatic examination means may include a bar code and bar-code reader system, electronic data chip and reader or knowledge/image database recognition”).

Support for new claims 44 and 45 may be found on page 8, lines 13-15 of the originally filed specification (“[t]his tumbling action may be enhanced by small protrusions and longitudinal ribs on the inside surface of the drum which catch and raise the pieces”).

Support for new claim 46 can be found on page 6, lines 10-12 of the originally found specification (“[t]he mechanical separator includes a vibrating screen 5 surrounded by a casing 13 at the top that wraps around the lateral sides of the screen to the bottom”).

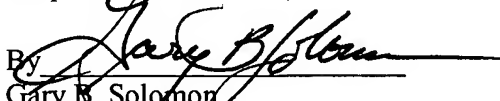
Applicants respectfully submit that the art of record does not teach or suggest, alone or in combination, the limitations of dependent claims 34-48 in combination with the respective independent claims 1, 18, 32, and 33 from which dependent claims 34-48 depend. Accordingly, Applicants respectfully request that new claims 34-48 be allowed for at least the same reasons as independent claims 1, 18, 32, and 33.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

Applicants believe no fees are due with this response. However, if a fee is due, please charge our Deposit Account No. 50-2816, under Order No. 024907.0103PTUS from which the undersigned is authorized to draw.

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Respectfully submitted,

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